

vine at the base, and, by detaching it for a long distance from the tree to which it clung, to bring down, if possible, the flower-bearing portion. Though a barbarous proceeding we nerved ourselves to it and our efforts were crowned with abundant success.

This plant, as your readers all probably know, is not described in Gray's "Manual," fifth edition, but whether its discovery in the Dismal Swamp in 1876, on the occasion above mentioned, was its first appearance north of the southern boundary line of Virginia, I do not know. However that may be, I thought it might interest some to know that it had been found at the northern border of the swamp and within ten miles of Norfolk.—LESTER F. WARD.

Proterogyn in *Sparganium eurycarpum*.—In a marsh near the Eastern Branch of the Potomac I found a few days since the finest patch of *Sparganium eurycarpum* that I ever saw, the developed white blossoms being conspicuous from a distance. On approaching and examining them I perceived that the plant was very obviously proterogynous. The two distinct states were so clearly marked that they gave the appearance of two kinds of plants. Those on which the fertile heads were developed and the stigmas ready to receive pollen invariably had all the staminate heads undeveloped, while those in which the staminate heads were developed had in all cases commenced to form fruit. Still a third state occurred in which anthesis was entirely past in both kinds of heads and large heads of fruit had formed. While the order of development of the pistillate and staminate heads was always the same, abundance of plants existed in both states, so that fertilization was possible, yet a careful search failed to reveal a single plant in which the time of expansion of the male and female flowers was synchronous—*i. e.*, in which self-fertilization could have taken place.—LESTER F. WARD.

Contributions to North American Botany, by Asa Gray: Proc. Am. Acad. Vol. XVII.—It is almost impossible to appreciate the amount of labor represented by this contribution. In his elaboration of the vast family of *Compositae* as displayed in North America, Dr. Gray's work has been of the most laborious and intricate kind. No living botanist could have conducted us half so well through such a bewildering maze of forms and synonyms, and the consultation of type specimens in the older herbaria has not in all cases shed a flood of light. Probably *Aster* and *Solidago* are two of the most vexatious genera of this great family as all botanists will testify in whose herbaria are lurking many unplaceable forms. The first part of this paper is devoted to the record of some of the results of the study of these difficult genera in the older herbaria and their difficulty can best be appreciated when Dr. Gray, who has seen more type-specimens of the species and has given more time to the systematic study of these genera than any one testifies

that "in certain groups absolute or practical definition of the species by written characters or descriptions is beyond my powers." The greatest confusion seems to have arisen from the fact that many old species were established upon cultivated plants and others upon a perfect medley of forms, which being resolved leaves nothing behind upon which to establish a species and a name must be suppressed. For instance, *Aster Novi-Belgii*, L., disappears, being swallowed up completely by neighboring species; which is also the case with *A. miser*, L., and *A. Tradescanti*, L., although in this last case the old name claims a small share, the rest all disappearing under *A. paniculatus* Lam., and *A. vimineus*, Lam. The name *A. linifolius* subsides from the American Flora, and so it goes, until in the forthcoming work on *Compositæ* it will take us many a day to get the run of our Asters.

As for *Solidago*, which now numbers nearly 80 species in North America, Dr. Gray gives a general arrangement under the three sections VIRGAUREA (which is made to include the old *Chrysastrum*), EUTHAMIA, and CHRYSOMA. Under the first section the species are arranged in five groups, *Squarrosæ* (§ *Chrysastrum*, T. & G.), *Glomerulifloræ*, *Thyrsifloræ*, *Paniculataæ*, and *Corymbosæ*. But few of the changes can be noted. For example, *S. thyrsoides*, E. Meyer, becomes *S. macrophylla*, Pursh; the vars. *multiradiata* and *humilis* of *S. Virgaurea* are acknowledged as species; *S. virgata*, Mx., falls under *S. stricta*, Ait.; the *S. altissima* of the Manual is *S. rugosa*, Mill., *S. Muhlenbergii*, T. & G. comes under *S. arguta*, Ait.; and *S. gigantea* is but a variety of *S. serotina*.

In the same contribution are the descriptions of many new species, mainly from Arizona and adjacent districts. A new buckeye from Lower California is an interesting discovery and many well-known genera receive large additions. A synopsis of North American species of *Baccharis* (18 in number) is given. Three new genera are described, all *Compositæ*; *Plummera*, from Southern Arizona, related to *Actinella* and named in honor of Mrs. J. E. Lemmon; *Dugesia*, from Northern Mexico and dedicated to Prof. Alfred Duges, a Mexican Zoologist; and *Hecastocleis*, from Nevada, a member of the *Mutisiaceæ*, and whose generic name alludes to the separate enclosure of each flower in its involucre.

A footnote informs us that the unequal insertion of the stamens will no longer serve to distinguish *Collomia* from *Gilia* and that hence Nuttall's *Collomia* must be remanded to the already large genus *Gilia*.—J. M. C.

Contributions to American Botany, by Sereno Watson; Proc. Am. Acad., Vol. XVII.—The larger part of this contribution is devoted to a list of the *Polypetalæ* from S. W. Texas and N. Mexico, collected chiefly by Dr. E. Palmer in 1879-80. The list is